

2/25/02
Daniel
[initials]

IN THE CLAIMS:

Please amend claims 19-21 and 25-27 as follows.

19. A signal transmission and receiving apparatus comprising a transmission apparatus and a receiving apparatus,

said transmission apparatus comprising:

- a mapper operable to map a data stream including audio and video information to an n-level digital mapped signal;

- a filter having a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic, which covers a frequency band not including the carrier frequency, said filter being operable to filter the n-level digital mapped signal to produce a VSB modulated signal; and

- a transmitter operable to transmit the VSB modulated signal;

said receiving apparatus comprising:

- a demodulator operable to demodulate the VSB modulated signal to the data stream including the audio and video information.

20. A signal transmission apparatus comprising:

- a mapper operable to map a data stream including audio and video information to an n-level digital mapped signal;

- a filter having a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic, which covers a frequency band not including the carrier frequency, said filter being operable to filter the n-level digital mapped signal to produce a VSB modulated signal; and

- a transmitter operable to transmit the VSB modulated signal.

21. A signal receiving apparatus comprising:

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Concl*

- a receiver operable to receive a transmitted VSB modulated signal having information of a data stream including audio and video information;

- a filter having a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic, which covers a frequency band not including the carrier frequency, said filter being operable to filter the VSB modulated signal to produce an n-level digital mapped signal; and

- a demapper operable to demap the n-level digital mapped signal to the data stream including the audio and video information.

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Cont*

25. A signal transmission and receiving method comprising a transmission method and a receiving method,

said transmission method comprising:

- mapping a data stream including audio and video information to an n-level digital mapped signal;

- filtering the n-level digital mapped signal with a filter having a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic, which covers a frequency band not including the carrier frequency, to produce a VSB modulated signal; and

- transmitting the VSB modulated signal;

said receiving method comprising:

- demodulating the VSB modulated signal to the data stream including the audio and video information.

26. A signal transmission method comprising:

- mapping a data stream including audio and video information to an n-level digital mapped signal;

- filtering the n-level digital mapped signal with a filter having a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic, which covers a frequency band not including the carrier frequency, to produce a VSB modulated signal; and

- transmitting the VSB modulated signal.

27. A signal receiving method comprising:

- receiving a transmitted VSB modulated signal having information of a data stream including audio and video information;

- filtering the n-level digital VSB modulated signal with a filter having a VSB characteristic, which covers a frequency band including a carrier frequency, and a roll-off characteristic, which covers a frequency band not including the carrier frequency, to produce an n-level digital mapped signal; and

- demapping the n-level digital mapped signal to the data stream including the audio and video information.
